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Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: June 19, 2002

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Sheet	1	of	5
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**Complete if Known**

<b>Application Number</b>	10/086,637
<b>Filing Date</b>	03/04/2002
<b>First Named Inventor</b>	Milton D. Goldenberg
<b>Group Art Unit</b>	1619
<b>Examiner Name</b>	Unassigned
<b>Attorney Docket Number</b>	018733-1094

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
J A 3 A 4 A 5 A 6 A 7 A 8 A 9 A 10 A 11 A 12 A 13 A 14 A 15 A 16	A1	4,932,412		GOLDENBERG	06/1990	
	A2	4,348,376		GOLDENBERG	09/1982	
	A3	4,361,544		GOLDENBERG	11/1982	
	A4	4,624,846		GOLDENBERG	11/1986	
	A5	4,311,647		GOLDENBERG	05/1982	
	A6	4,444,744		GOLDENBERG	04/1984	
	A7	4,460,561		GOLDENBERG	07/1984	
	A8	4,624,846		GOLDENBERG	11/1986	
	A9	5,256,395		BARBET et al.	11/1993	
	A10	5,274,076		BARBET et al.	12/1993	
	A11	4,782,840		MARTIN, JR. et al.	11/1988	
	A12	4,474,893		READING	10/1984	
	A13	4,818,709		PRIMUS et al.	04/1989	
	A14	4,859,449		MATTES	08/1989	
	A15	4,946,778		LADNER et al.	08/1990	
	A16	5,057,313		SHIH et al.	10/1991	

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## FOREIGN PATENT DOCUMENTS

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<i>Re</i>	A17	AITKEN et al., "A Gamma-Detecting Probe for Radioimmune Detection of CEA- Producing Tumors," <u>Diseases of the Colon &amp; Rectum</u> Vol. 27, No. 5, (1984), pp. 279-282, American Society.	
<i>AS</i>	A18	ALLEN et al., "Combined Laser Therapy and Endobronchial Radiotherapy for Unresectable Lung Carcinoma With Bronchial Obstruction," <u>American Journal of Surgery</u> Vol. 150, (1985), pp. 71-77.	

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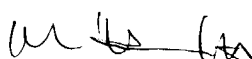
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10	A19	BETTER et al., "Escherichia coli Secretion of an Active Chimeric Antibody Fragment," <u>Science</u> Vol. 240, (1988), pp. 1041-1042.	
17	A20	CARTER et al., "High Level <i>Escherichia Coli</i> Expression and Production of a Bivalent Humanized Antibody Fragment," <u>Biotechnology</u> Vol. 10, (1992), pp. 163-167.	
18	A21	FLEISCHER, "Endoscopic Laser Therapy for Gastrointestinal Disease," <u>Acrh. Intern. Med.</u> Vol 144, No. 6, (1984), pp. 1225-1230.	
22	A22	HIRANO et al., "Photodynamic Cancer Diagnosis and Treatment System Consisting of Pulse Lasers and Endoscopic Spectro-Image Analyzer," <u>Lasers in the Life Sciences</u> Vol. 3, No. 2, (1989), pp. 89-116.	
18	A23	HUNTER et al., "Lasers in Endoscopic Gastrointestinal Surgery," <u>The American Journal of Surgery</u> , Vol. 148, (1984), pp. 736-741.	
24	A24	KRISHNAN et al., "Chimerization of Mu-9: A Colon-Specific Antigen-p Antibody Reactive with Gastrointestinal Carcinomas," <u>Cancer</u> , Vol. 80, No. 12, (1987), pp. 2667-2674.	
15	A25	LEUNG et al., "Bacterial Expression of Kemptide Fusion Protein Facilitates <sup>32</sup> P labeling of a Humanized, Anti- Carcinoembryonic Antigen (hMN-14) Antibody Fragment," <u>Cancer Research</u> , Vol. 55, No. 23, (1995), pp. 5968-5972.	
16	A26	MILSTEIN et al., "Hybrid Hybridomas and the Production of Bi-Specific Monoclonal Antibodies," <u>Immunology Today</u> , Vol. 5 No. 10, (1984), pp. 299-304.	
18	A27	PAGANELLI et al., "Three-Stop Monoclonal Antibody Tumor Targeting in Carcinoembryonic Antigen Positive Patients," <u>Cancer Research</u> , Vol. 51, No. 21, (1991), pp. 5960-5966.	
18	A28	PROFIO et al., "Flourescence Diagnosis of Cancer," <u>Advances in Experimental Medicine and Biology</u> , Vol. 193, pp. 43-50, 1985.	
18	A29	SCHRAY et al., "Management of Malignant Airway Obstruction: Clinical and Dosimetric Considerations Using An Iridium-192 Afterloading Technique in Conjunction with the Neodymium-Yag Laser," <u>Int. J. Radiation Oncology Biol. Phys.</u> , Vol. 11, No. 2, (1985), pp. 403-409.	

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Group Art Unit	1619
Examiner Name	Unassigned
Attorney Docket Number	018733-1094

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<i>[initials]</i>	A30	SCERRA et al., "Assembly of a Functional Immunoglobulin F <sub>v</sub> Fragment in <i>Escherichia Coli</i> ," <u>Science</u> , Vol. 240, (1988), pp.1038-1041.	
<i>[initials]</i>	A31	STUDIER et al., "Use of Bacteriophage T7 RNA Polymerase to Direct Selective High-Level Expression of Cloned Genes," <u>J. Mol. Biol.</u> , Vol. 189, No. 1, (1986), pp. 113-130.	
<i>[initials]</i>	A32	TATSUTA et al., "Diagnosis of Gastric Cancers With Flourescein- Labeled Monoclonal Antibodies to Carcinoembryonic Antigen," <u>Lasers in Surgery and Medicine</u> , Vol. 9, No. 4, (1989).	
<i>[initials]</i>	A33	JOHNSON et al., "Preparation and Use of Flouochrome Conjugates," <u>Handbook of Experimental Immunology in Four Volumes- Volume 1: Immunochemistry</u> , Blackwell Scientific Publications, pp. 1-28.21.	
<i>[initials]</i>	A34	WOOD et al., "Tumor Ablation by Endoscopic Nd: YAG Laser," <u>The American Journal of Gastroenterology</u> , Vol. 80, No. 9 (1985), pp. 715-718.	
<i>[initials]</i>	A35	PROFIO, "Review of Flouescence Diagnosis Using Porphyrins," <u>SPIE - The International Society For Optical Engineering</u> , Vol. 907, (1988), pp. 150-156.	
<i>[initials]</i>	A36	PAGANELLI et al., "Monoclonal Antibody Pretargeting Techniques for Tumour Localization: The Avidin-Biotin System," <u>Nuclear Medicine Communications</u> , Vol. 12, (1991), pp. 211-234.	
<i>[initials]</i>	A37	PELEGRIN et al., "Antibody-Flourescein Conjugates for Photoimmunodiagnosis of Human Colon Carcinoma in Nude Mice," <u>Cancer</u> , Vol. 67, (1991), pp. 2529-2537.	
<i>[initials]</i>	A38	VAN DEN BERGH, "Lighy and Porphyrins in Cancer Therapy," <u>Chem.</u> , Britain, Vol. 22, (1986), pp. 430-439..	

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Q	A39	DOUGHERTY et al., "Photoradiation Therapy for the Treatment of Malignant Tumors," <u>Cancer Research</u> , Vol. 38, (1978), pp. 2628-2635.	
Q	A40	DOUGHERTY et al., "Photosensitizers: Therapy and Detection of Malignant Tumors," <u>Photochem and Photobiology</u> , Vol. 45, No. 6, (1987), pp.879-889.	
Q	A41	DOIRON et al., "Flourescence Bronchoscopy for Detection of Lung Cancer," <u>Chest</u> , Vol. 76, No. 1, (1979), pp. 27-32.	
Q	A42	MEW et al., "Photoimmunotherapy: Treatment of Animal Tumors with Tumor-Specific Monoclonal Antibody-Hematoporphyrin Conjugates," <u>Journal of Immunology</u> , Vol. 130, No. 3, (1983), pp. 1473-1477.	
Q	A43	MEW et al., "Ability of Specific Monoclonal Antibodies and Conventional Antisera Conjugated to Hematoporphyrin to Label and Kill Selected Cell Lines Subsequent to Light Activation," <u>Cancer Research</u> , Vol. 45, (1985), pp. 4380-4386.	
Q	A44	OSEROFF et al., "Antibody- Targeted Photolysis: Selective Photodestruction of Human T-Cell Leukemia Cells Using Monoclonal Antibody-Chlorin $a_8$ Conjugates," <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 83, (1986), pp. 8744-8748.	
Q	A45	OSEROFF et al., "Strategies for Selective Cancer Photochemotherapy: Antibody- Targeted and Selective Carcinoma Cell Photolysis," <u>Photochemistry and Photobiology</u> , Vol. 46, No. 1, (1987), pp.83-98.	
Q	A46	HASAN et al., "Laser-Induced Selective Cytotoxicity Using Monoclonal Antibody-Chromophore Conjugates," <u>Immunity to Cancer</u> , Vol. II, (1989), pp. 471-477.	
Q	A47	ADAMS et al., "Highly Specific <i>in Vivo</i> Tumor Targeting by Monovalent and Divalent Forms of 741F8 Anti- <i>c-erbB-2</i> Single-Chain $F_v$ ," <u>Cancer Research</u> , Vol. 53, (1993), pp. 4026-4034	

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10	A48	HAUNSCHILD et al., "Pharmacokinetic Properties of Bivalent Miniantibodies and Comparison to Other Immunoglobulin Forms," <u>Antibody, Immunoconjugates and Radiopharmaceuticals</u> , Vol. 8, No.2, (1995), pp. 111-128.	
10	A49	TAI et al., "Targeting c-erbB-2 Expressing Tumors Using Single-Chain FV Monomers and Dimers," <u>Cancer Research</u> , Vol. 55, (1995), pp. 5983-5989.	

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